PHYSIK CHEMIE BIOLOGIE TECHNIK

LD DIDACTIC

10/14-W2010-Wei

Instruction Manual 727 816

ELM PM Magnet Rotor with Inner Magnets

1 Magnets for rotor position pick-up
2 Permanent magnets
3 Belt path

1 Description

Magnet wheel with 20 inner magnets (2) for use in the **stator**, *727 815*. Every other magnet combines into a pole, with color markings for the North and South poles. The design includes a pulley system (3) for actuation by the **drive unit**, *727 88*, and 4 embedded magnets (1) to use a rotor position pick-up.

The Instruction Manual *727 815*, **ELM Set: Multipole Stator and Rotor** provides a description of the stator and the overall design.

2 Technical Data

- Maximum speed: 3,000 rpm

General safety notes

- The device is only usable in the context of the experimental environment in this description.
- Only operate the device when mounted on the **basic machine unit**, *727 811*.

Special safety notes

Crushing hazard

The magnets in the rotor have a very strong attraction. They can move the rotor quickly and suddenly toward magnetic materials. Therefore they can pinch and crush skin or other body parts, such as fingers, which can cause bruises at the point of crushing.

Influence on pacemakers

The magnets within the rotor can affect the function of pacemakers and defibrillator implants. Consequently the devices can experience failures. When carrying such devices, make absolutely sure you maintain a sufficient clearance to the rotor, and inform other carriers of such devices about the possible dangers.

Risk of metal shards

The neodymium magnets within the rotor are brittle. Never try to disassemble the rotor. If two magnets hit each other, they can break and send sharp shards flying up to several meters away. This can injure the eyes of nearby people.

Influence of magnetic field

The permanent magnets within the rotor generate a very powerful magnetic field that is noticeable over great distances. Such magnetic fields can for example interfere with mobile phones, computers, storage media, credit cards or other electronic devices. Therefore keep the magnets far away from such devices or maintain a minimum safety distance of 25 cm!

Temperature resistance

The neodymium magnets within the rotor permanently lose some of their magnetism at temperatures above 80 °C. So avoid durably heating the rotor above 80 °C.

Risk of ingestion

In case the magnets get loose from the rotor, gather them using protective gloves (e.g. work gloves) and store them in a secure place you can lock. Make absolutely sure the magnets remain out of reach of children. Ingestion can lead to severe internal injuries!

Warning

The magnets are not toys!

LD DIDACTIC GMBH · Leyboldstrasse 1 · D-50354 Huerth / Germany · Phone +49 (0)2233 604-0 · Fax +49 (0)2233 604-222 · e-mail: info@ld-didactic.de

©by LD Didactic GmbH

Printed in the Federal Republic of Germany
Technical alterations reserved